



Name :

Roll No. :

Invigilator's Signature :

CS/M.Tech (CSE)/SEM-2/CST-1202-C2/2010

2010

MULTIMEDIA TECHNOLOGY

Time Allotted : 3 Hours

Full Marks : 70

The figures in the margin indicate full marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

GROUP – A

(Multiple Choice Type Questions)

1. Choose the correct alternatives for any *ten* of the following : 10 × 1 = 10

- i) With reference to multimedia elements, of the following, pick the “odd-one” out : graphics, animation, audio, video and voice script
 - a) voice script
 - b) video script
 - c) audio script
 - d) all of these.
- ii) What is another name for 2D animation ?
 - a) Cell animation
 - b) Video animation
 - c) Animation
 - d) None of these.
- iii) Which of the following two file formats has a smaller file size : WAV or MP3 ?
 - a) MP3
 - b) WAV
 - c) Both of these
 - d) None of these.



- iv) Which of the following is *not* a video file extension :
MP4, AVI, JPG and MOV ?
- a) MP4 b) AVI
c) MOV d) JPG.
- v) In a multimedia project, a storyboard details the text, graphics, audio, video, animation, interactivity, and other that should be used in each screen of the project.
- a) True
b) False.
- vi) DAT is an acronym for
- a) Digital Audio Tape b) Data Audio Tape
c) Disk Audio Tape d) None of these.
- vii) A broadcast/NTSC video requires how many FPS for it to play smoothly ?
- a) 30 b) 25
c) 15 d) 45.
- viii) Using Illustrator or CorelDraw you can create mainly what type of graphics ?
- a) Raster b) Gabor
c) Vector d) None of these.
- ix) What method of animation creates the in-between frames when you create the start and end points of the animation ?
- a) Tweening b) Motion
c) Shaping d) None of these.



- x) Which HTML tag you've to use to insert a Flash Movie in a web page ?
- a) Embedded b) Hyperlink
- c) Shaping d) None of these.
- xi) A most basic skill a person requires to pursue an animation career is skills.
- a) drawing b) masking
- c) tuning d) none of these.

GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following. $3 \times 5 = 15$

2. What are the components of multimedia ? Describe the components along with block diagram.
3. Discuss RLE with proper example.
4. What is Global Histogram based approach in multimedia database ? Give the expression.
5. Give a comparative study between JPEG & BMP format ?
6. How could you define codec ? Where is it used ? What is the different of speech codec & video codec ?
7. What do you mean by I-frame, P-frame and B-frame ? What for these are used ?
8. Write down the working principle of Sound card with block diagram.



GROUP – C

(Long Answer Type Questions)

Answer any *three* of the following. $3 \times 15 = 45$

9. A movie having 3.5 hrs. of time duration in NTSC system. Calculate the total no. of frames. How digital to analog signal will convert ? Right down the steps with block diagram. Write a short note on AGP. Discuss RGB in brief with Venn diagram. Define Gamut. $3 + 3 + 4 + 4 + 1$
10. What is Grey scale ? Write down the working principle of Scanner and Laser printer. Describe incremental line drawing algorithm. How many no. frames will be required to represent 3.5 hrs. of QCIF video ? $1 + 7 + 5 + 2$
11. A document contains letters A through F with frequencies as indicated :
- A : 0.25 B : 0.1 C : 0.2 D : 0.15 E : 0.26 F : 0.04
- Use Huffman coding to derive a codeword set. Describe Huffman coding. What are the differences between MPEG-1 and MPEG-2 standard ? What is H.261 ? How is it different from H.263 ? $4 + 4 + 3 + 2 + 2$
12. Write short notes on any *three* of the following : 3×5
- a) Multimedia Database
 - b) Global histogram approach
 - c) LHA
 - d) TFT vs LCD
 - e) PDP.